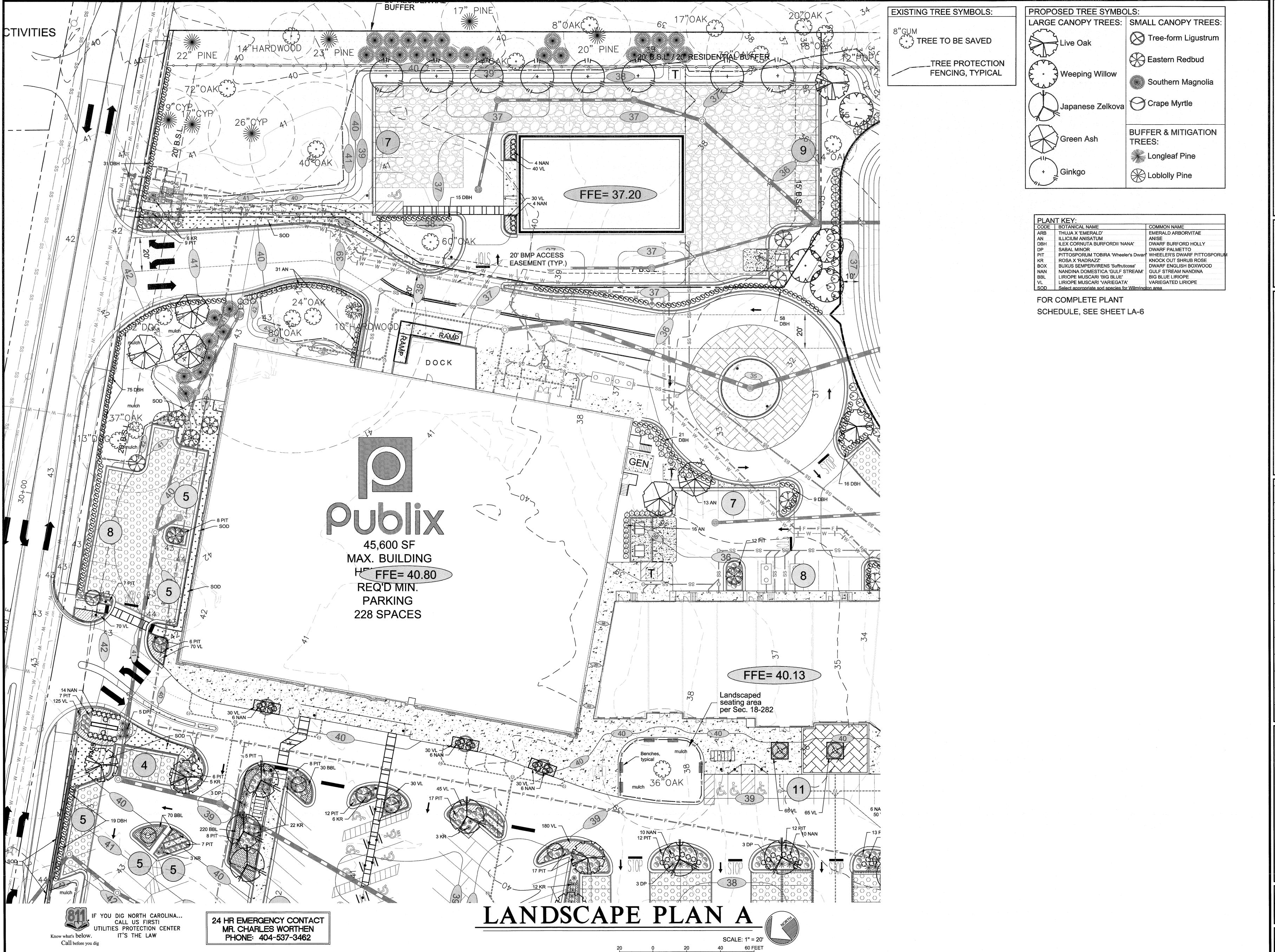
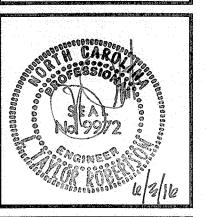


TREE REPLA PLAN

06-01-16 PROJECT NUMBER 13-288

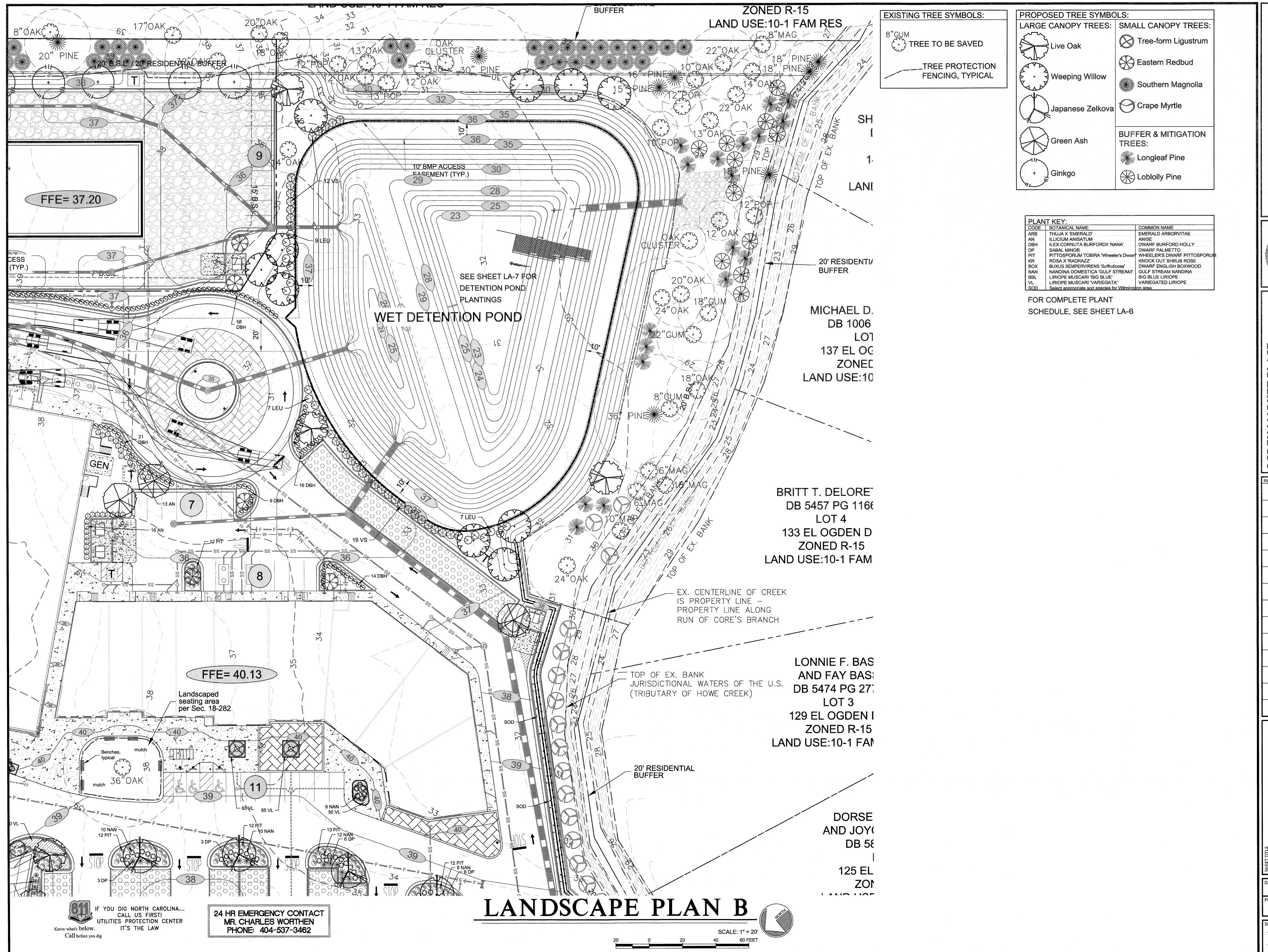
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LA-3



ROBERTSON LOIA ROOF
ARCHITECTS & ENGINEERS

GAMES 1/2/16

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NEW HANOVER COUNTY, NORTH CAROLINA
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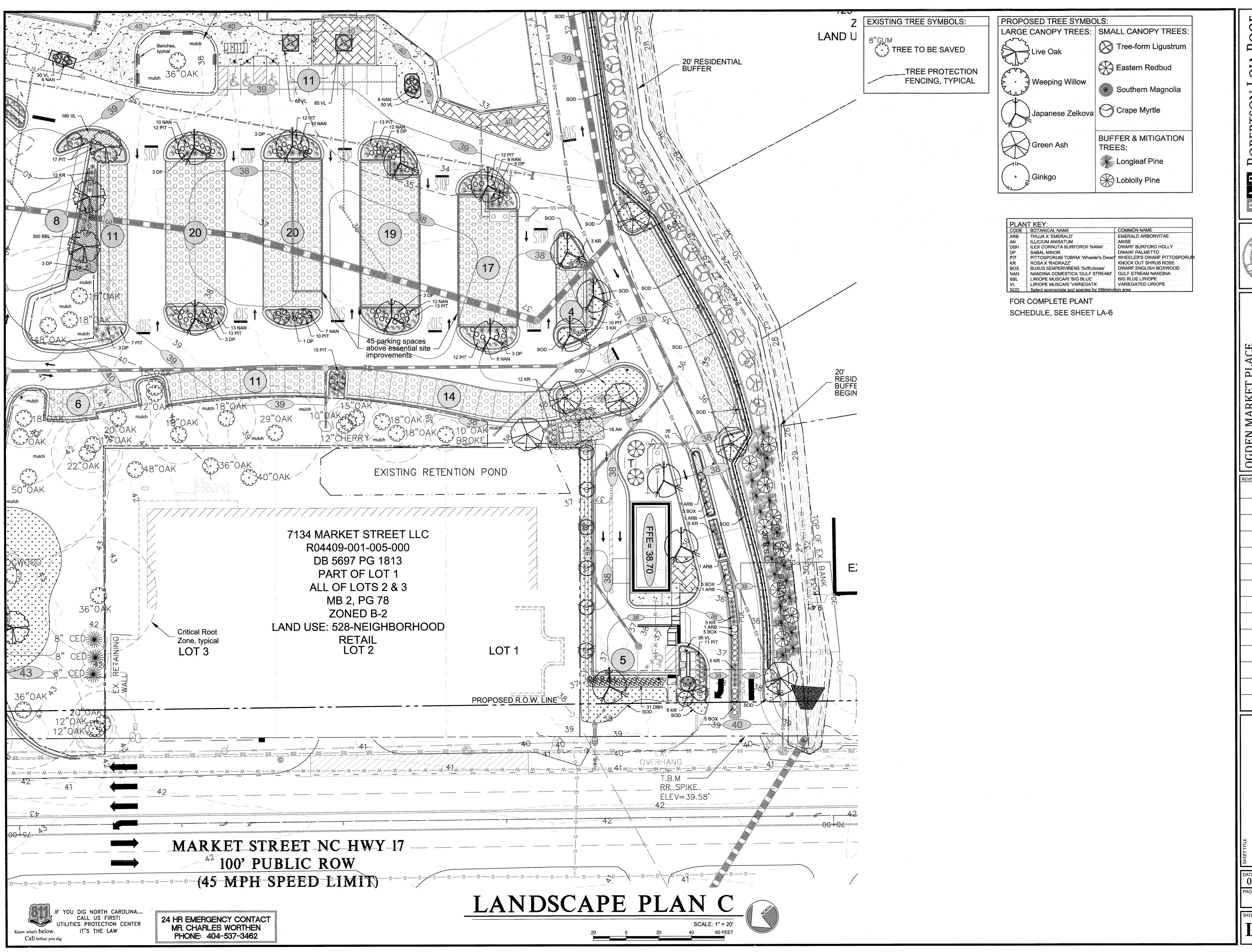
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06-01-16
PROJECT NUMBER
13-288

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LA-4



BERTSON LOIA ROOF

ARCHITECTS & E

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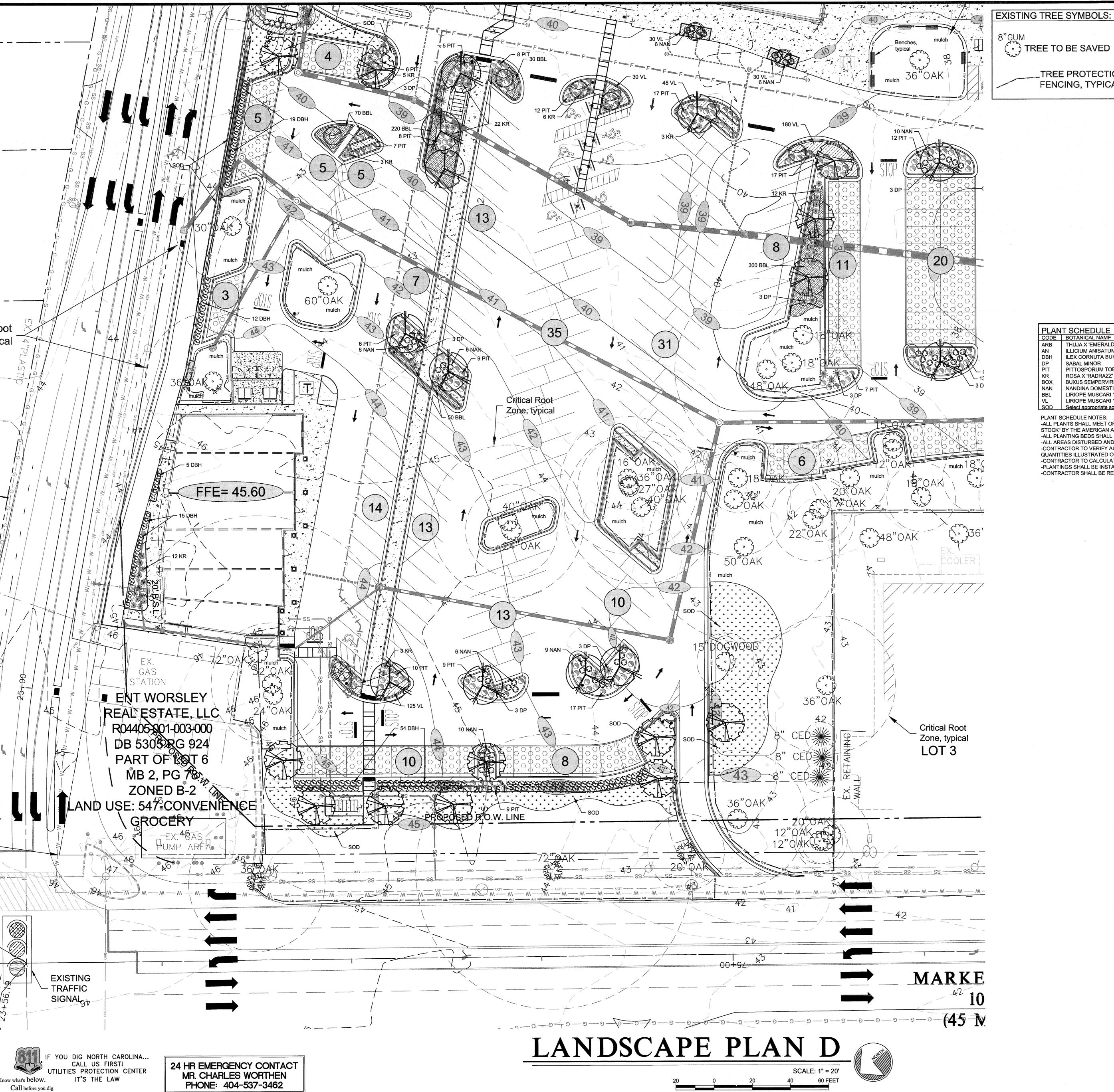
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7120 MARKET STREET, WILMINGTON, NORTH CAROL
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HALPERN ENTERPRISES, I
5269 BUFORD HIGHWAY, ATLANTA, GEORG

LANDSCAPE PLAN C

DATE 0 6 - 0 1 - 1 6 PROJECT NUMBER 13-288

LA-5



Call before you dig

PROPOSED TREE SYMBOLS: LARGE CANOPY TREES: | SMALL CANOPY TREES: Tree-form Ligustrum TREE TO BE SAVED Eastern Redbud \_TREE PROTECTION FENCING, TYPICAL ₹ Weeping Willow Southern Magnolia Japanese Zelkova Crape Myrtle **BUFFER & MITIGATION** TREES: Longleaf Pine

) Ginkgo

PLANT CODES
CAL. = TRUNK CALIPER GAL. = GALLON CONTAINER B&B = BALLED & BURLAPPED CON. = CONTAINER GROWN MATERIAL BR. = BARE ROOT MATERIAL SS = SINGLE STEMMED TRUNK MS = MULTI-STEMMED TRUNK SP = SPECIMEN MATERIAL TF = TREE FORM FWF = FULL & WELL FORMED O.C. = ON CENTER

Loblolly Pine

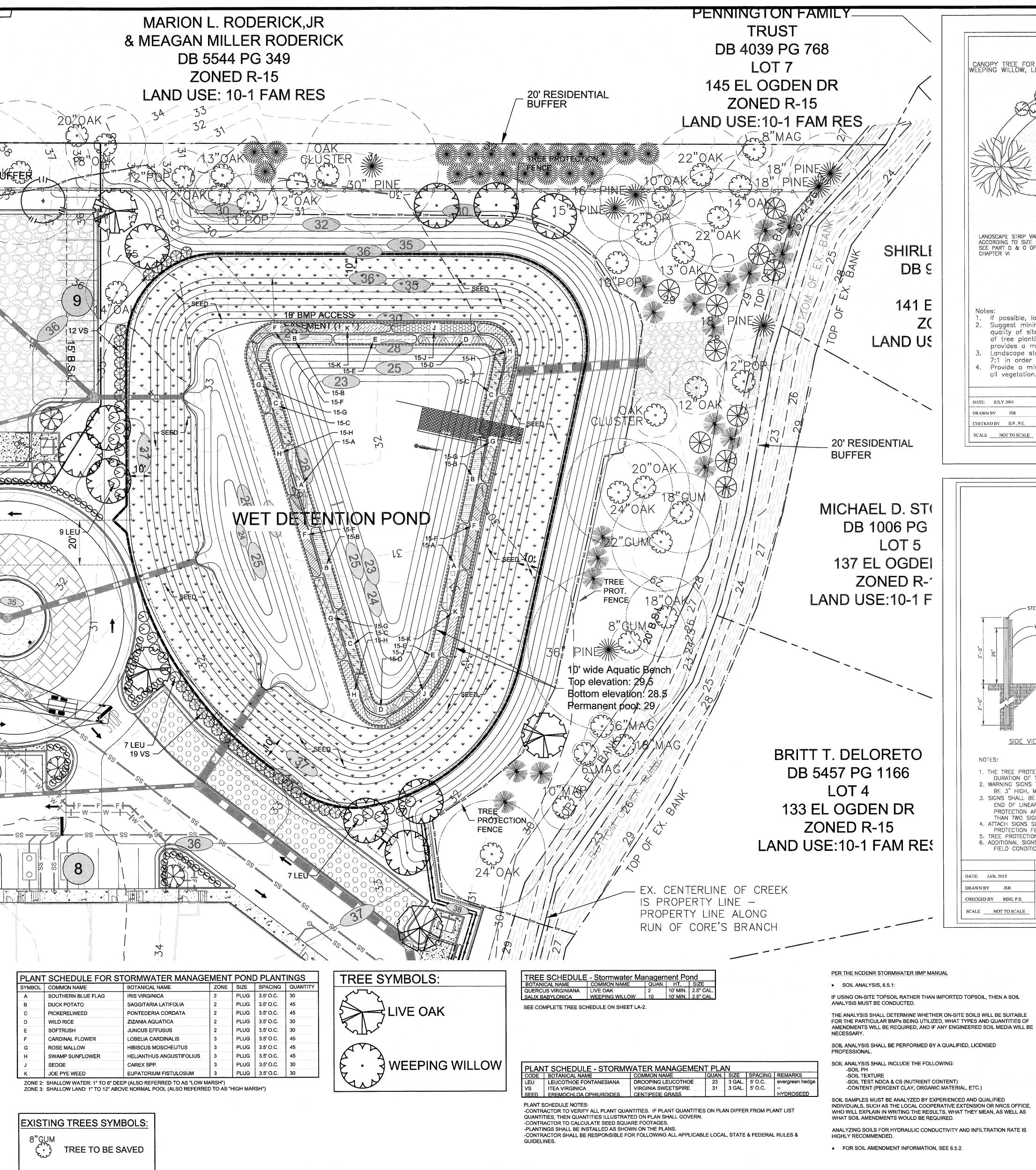
PLANT SCHEDULE						
CODE	BOTANICAL NAME	COMMON NAME	QUAN.	SIZE	SPACING	REMARKS
ARB	THUJA X 'EMERALD'	EMERALD ARBORVITAE	5	4' HT.	AS SHOWN	<b></b>
AN	ILLICIUM ANISATUM	ANISE	78	3' HT.	3.5' O.C.	
DBH	ILEX CORNUTA BURFORDII 'NANA'	DWARF BURFORD HOLLY	375	3 GAL.	3.5' O.C.	hedge
DP	SABAL MINOR	DWARF PALMETTO	54	3 GAL.	AS SHOWN	,
PIT	PITTOSPORUM TOBIRA 'Wheeler's Dwarf	WHEELER'S DWARF PITTOSPORU	N 399	3 GAL.	3.5' O.C.	
KR	ROSA X 'RADRAZZ'	KNOCK OUT SHRUB ROSE	110	3 GAL.	3.5' O.C.	<b></b>
BOX	BUXUS SEMPERVIRENS 'Suffruticosa'	DWARF ENGLISH BOXWOOD	20	2 GAL.	3' O.C.	
NAN	NANDINA DOMESTICA 'GULF STREAM'	GULF STREAM NANDINA	161	3 GAL.	3.5' O.C.	
BBL	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LIRIOPE	670	1 GAL.	18" O.C.	groundcover
VL	LIRIOPE MUSCARI 'VARIEGATA'	VARIEGATED LIRIOPE	1040	4" POTS	15" O.C.	groundcover
SOD	Select appropriate sod species for Wilming	on area				SOD

-ALL PLANTS SHALL MEET OR EXCEED THE MINIMUM STANDARDS SET FORTH IN "THE AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

-ALL PLANTING BEDS SHALL RECEIVE A MINIMUM OF 4" PINE BARK MULCH. -ALL AREAS DISTURBED AND NOT SPECIFIED SHALL BE MULCHED.

-CONTRACTOR TO VERIFY ALL PLANT QUANTITIES. IF PLANT QUANTITIES ON PLAN DIFFER FROM PLANT LIST QUANTITIES, THEN QUANTITIES ILLUSTRATED ON PLAN SHALL GOVERN.
-CONTRACTOR TO CALCULATE ALL SOD & SEED SQUARE FOOTAGES.
-PLANTINGS SHALL BE INSTALLED AS SHOWN ON THE PLANS.
-CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING ALL APPLICABLE LOCAL, STATE & FEDERAL RULES & GUIDELINES.

0 6 - 0 1 - 1 6 PROJECT NUMBER 13-288



TREE PROTECTION

YOU DIG NORTH CAROLINA...

CALL US FIRST! ITILITIES PROTECTION CENTER

IT'S THE LAW

Know what's below.

Call before you dig

24 HR EMERGENCY CONTACT

MR. CHARLES WORTHEN

PHONE: 404-537-3462

FENCING, TYPICAL

LUSTER SHRUBS F LOW MAINTENANCE If possible, locate pond where vegetation exists. Suggest minimal clearing to conserve visual quality of site and minimize the additional of tree planting. An irregular shape provides a more natural appearance.

Landscape strip shall be a maximum slope of 7:1 in order to plant vegetation. Provide a minimum of 3 inches of mulch around all vegetation. STANDARD DETAIL DATE: JULY 2003 **TYPICAL** STORM WATER FACILITY CHECKED BY B.P., P.E. LANDSCAPING PLAN SD 15-16 SCALE NOT TO SCALE

VARIABLE AS DIRECTED BY THE ENGINEER \_\_

HIGH - TENSILE STRENGTH

FRONT VIEW

ONÀ PROTECTORA PARA LOS ARBOLES PROHIBIDO ENTRAR

WARNING SIGN DETAIL

ORANGE, UV RESISTANT

SIDE VIEW

HIGH - TENSILE STRENGTH POLY BARRICADE FABRIC (TYPICAL)

1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE

BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.

4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.

3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH

PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS

END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE

5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL

STANDARD DETAIL

TREE PROTECTION

DURING

CONSTRUCTION

• SOIL SPECIFICATIONS, 6.5.3:

PLANTING AND AFTER CARE, 6.6.2:

PLANT HEALTH PROBLEMS.

SHEET 2 of 2

NO MORE THAN 10% CLAY (USDA SOIL TEXTURAL CLASSIFICATION).

• FOR SITE PREPARATION, GRADING AND INSTALLATION, SEE 6.6.

-SOIL TEXTURE OF THE MIX USED FOR STORMWATER WETLANDS SHOULD BE LOAMY SAND, WITH

-THE pH SHOULD BE BETWEEN 5.5 AND 7.0. IF THE pH FALLS OUTSIDE OF THIS RANGE, IT MAY BE MODIFIED WITH LIME TO INCREASE THE pH OR IRON SULFATE AND SULFUR TO LOWER THE pH. THE

-TOPSOIL STOCKPILE LOCATION (IF USING ON-SITE SOILS) OR SOURCE OF TOPSOIL IF IMPORTED TO

SOIL AMENDMENTS SHOULD BE INCORPORATED AT THE END OF THE SITE DEVELOPMENT PROCESS

TO PREVENT SEDIMENT FROM ENTERING THE BMP FACILITY. THE BMP SHOULD BE PLANTED AND

MULCHED IMMEDIATELY AFTER AMENDING THE SOIL TO STABILIZE THE SITE AS SOON AS POSSIBLE

FALL AND WINTER ARE OPTIMAL PLANTING TIMES FOR NORTH CAROLINA. HOWEVER, SHALLOW WATER PLANTS SHOULD BE INSTALLED BETWEEN APRIL 1 AND JULY 15 IN NORTH CAROLINA, IF

MINIMIZE OR ELIMINATE THE USE OF PESTICIDES AND FERTILIZERS. A ONE-TIME APPLICATION OF

SHOULD BE TRAINED TO ADJUST CHEMICAL INPUTS ACCORDINGLY AND MANAGE TO RECOGNIZE

FERTILIZER IS ALLOWED TO HELP ESTABLISHMENT. LANDSCAPE MANAGEMENT PERSONNEL

NEWLY INSTALLED PLANT MATERIAL MUST BE WATERED IMMEDIATELY AFTER PLANTING.

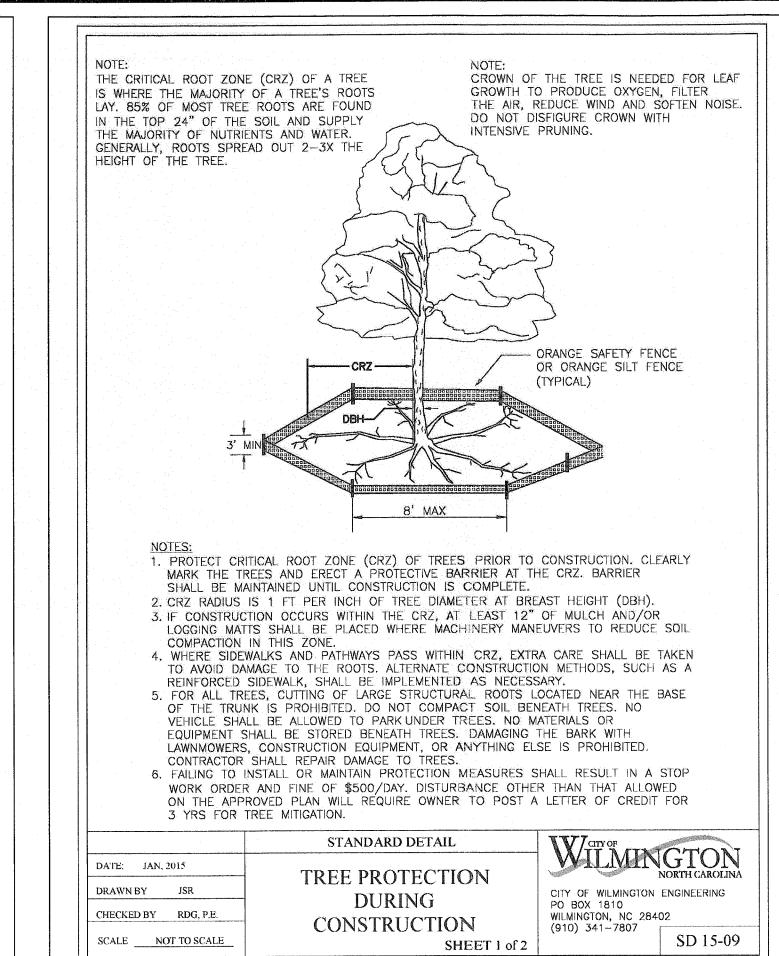
POSSIBLE. WINTER PLANTING IS DIFFICULT WITH SHALLOW WATER PLANTS.

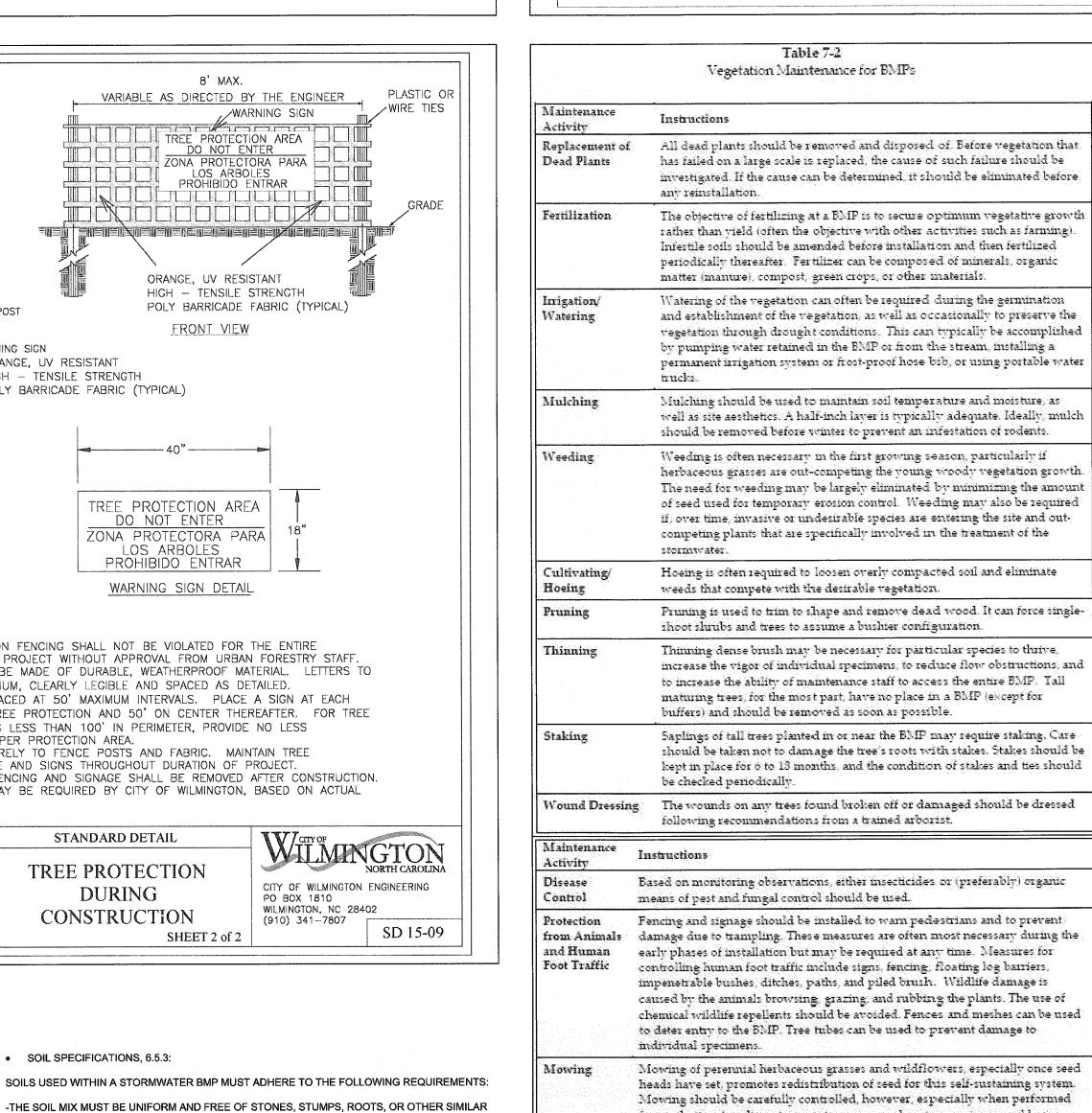
-A MINIMUM ORGANIC CONTENT OF 10% BY DRY WEIGHT FOR AREAS PLANTED WITH WOODY

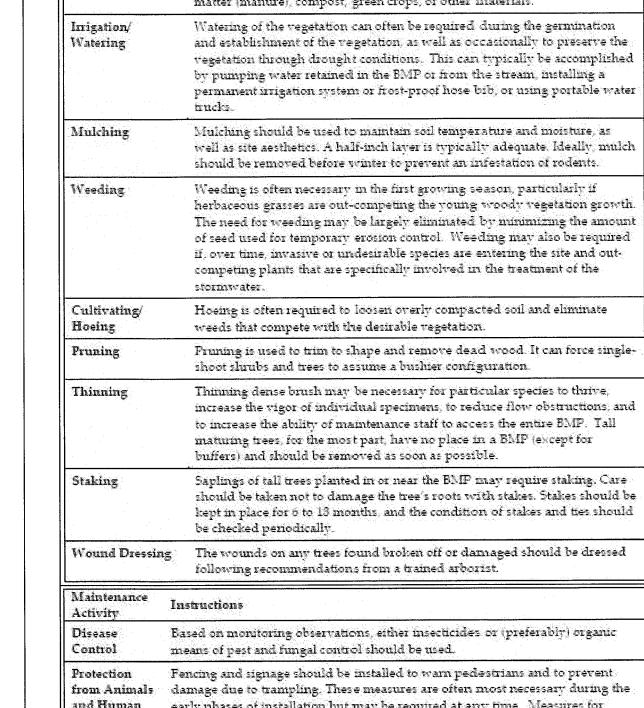
THE SITE. SOIL ANALYSIS FOR ALL TOPSOIL TO BE USED WITHIN A BMP FACILITY.

POLY BARRICADE FABRIC (TYPICAL)

PO BOX 1810 WILMINGTON, NC 28402

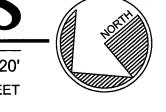






Mowing of perennial herbaceous grasses and wildflowers, especially once seed heads have set, promotes redistribution of seed for this self-sustaining system. Mowing should be carefully controlled, however, especially when performed for aesthetics. As adjacent property owners and customers in general learn more about BMPs, their vision of what is aesthetically pleasing can change. Grasses, in healthy herbaceous stands, should never be mown more than once

STORMWATER MGMT POND PLANTINGS



04-23-16

13-288

PROJECT NUMBER

provides a more natural appearance.

7:1 in order to plant vegetation.

all vegetation.

DATE: JULY 2003

DRAWN BY JSR

CHECKED BY B.P., P.E.

SCALE NOT TO SCALE

Landscape strip shall be a maximum slope of

4. Provide a minimum of 3 inches of mulch around

STANDARD DETAIL

**TYPICAL** 

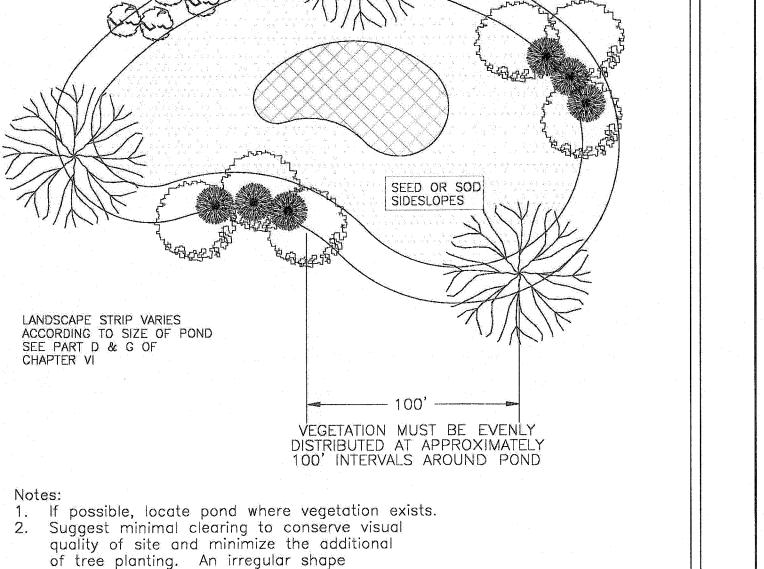
STORM WATER FACILITY

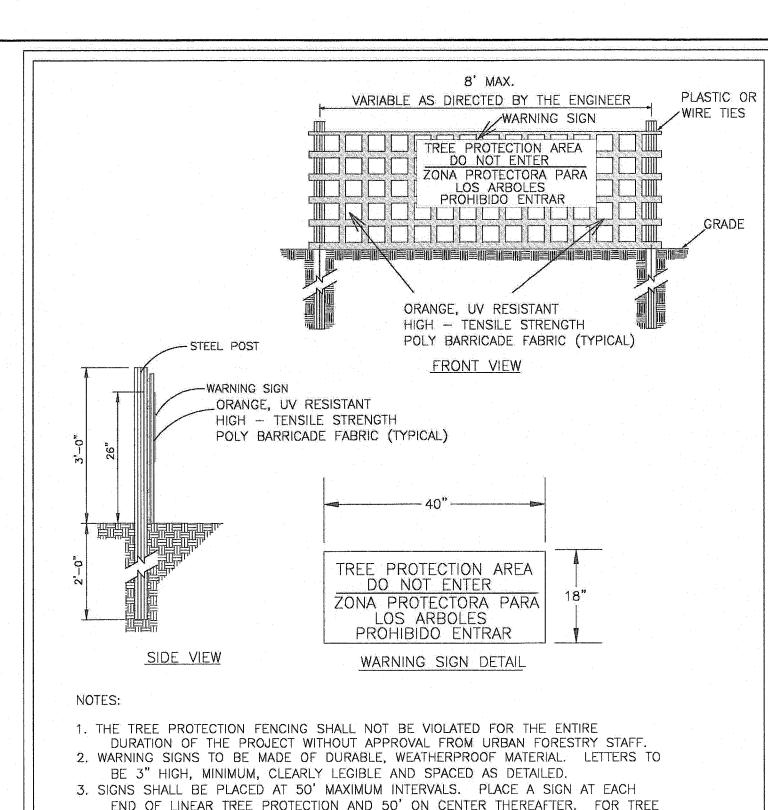
LANDSCAPING PLAN

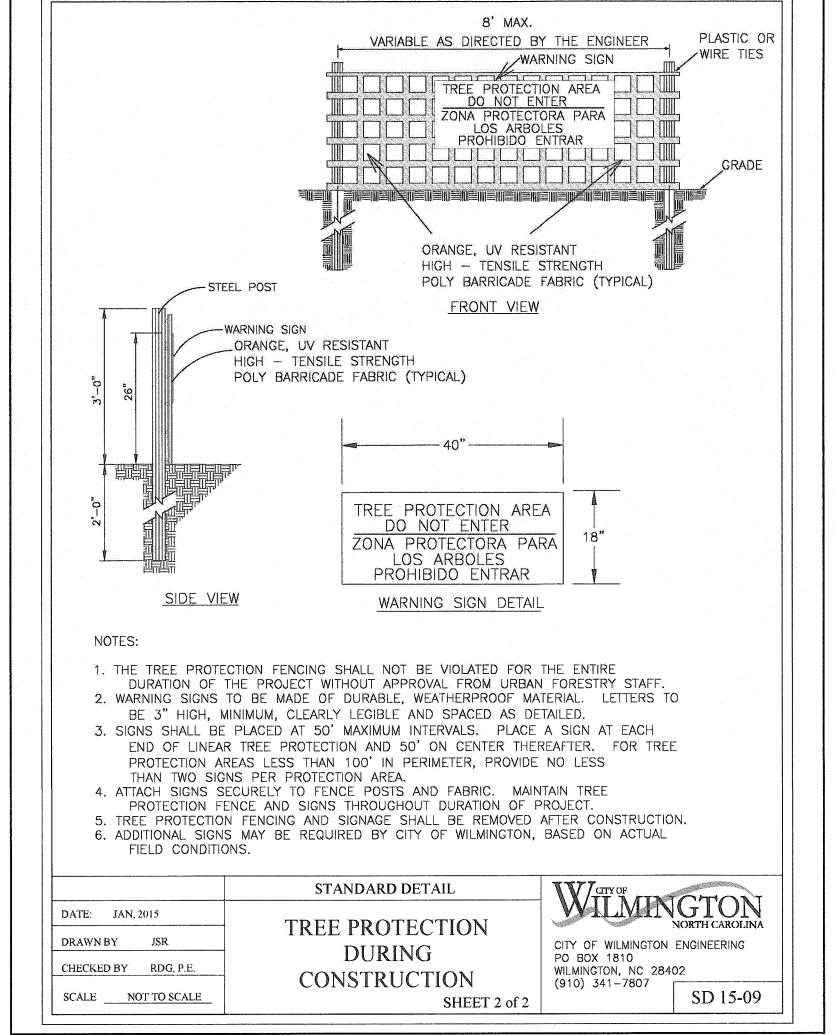
WILMINGTON

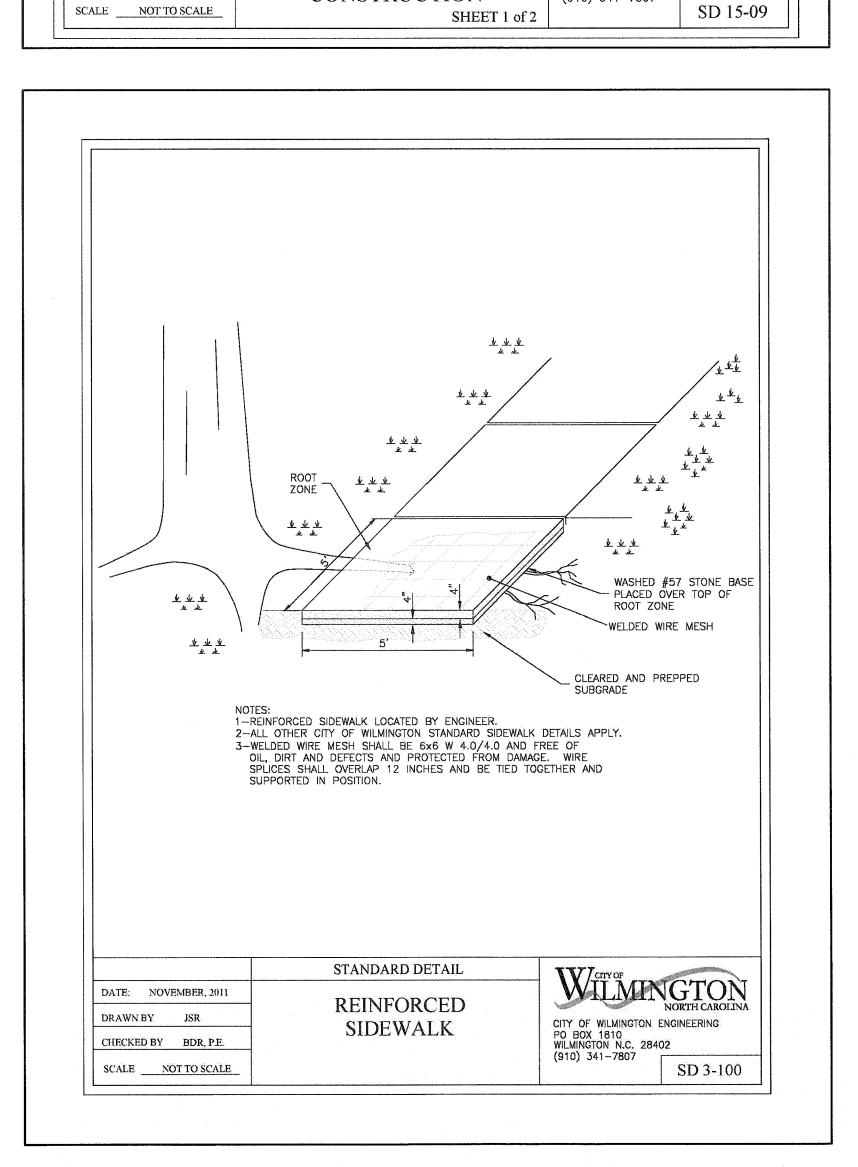
CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807

SD 15-16









1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER

LOGGING MATTS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL

4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN

5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE

6. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP

WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR

OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES, NO

EQUIPMENT SHALL BE STORED BENEATH TREES, DAMAGING THE BARK WITH

LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED.

VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR

STANDARD DETAIL

TREE PROTECTION

DURING

CONSTRUCTION

TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A

2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH). 3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR

SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.

REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.

CONTRACTOR SHALL REPAIR DAMAGE TO TREES.

3 YRS FOR TREE MITIGATION.

DATE: JAN, 2015

DRAWN BY JSR

CHECKED BY RDG, P.E.

THE CRITICAL ROOT ZONE (CRZ) OF A TREE

IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND

IN THE TOP 24" OF THE SOIL AND SUPPLY

THE MAJORITY OF NUTRIENTS AND WATER.
GENERALLY, ROOTS SPREAD OUT 2-3X THE
HEIGHT OF THE TREE.

CROWN OF THE TREE IS NEEDED FOR LEAF

- ORANGE SAFETY FENCE

OR ORANGE SILT FENCE

WILMINGTON

CITY OF WILMINGTON ENGINEERING

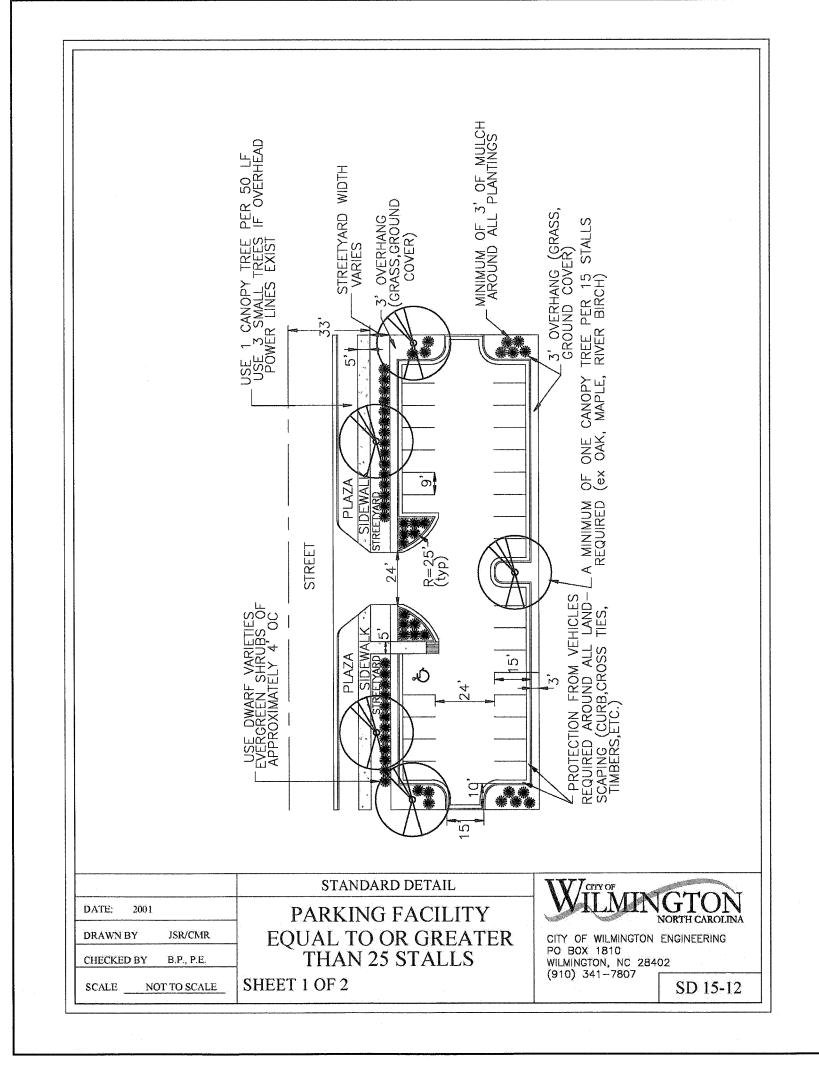
PO BOX 1810 WILMINGTON, NC 28402

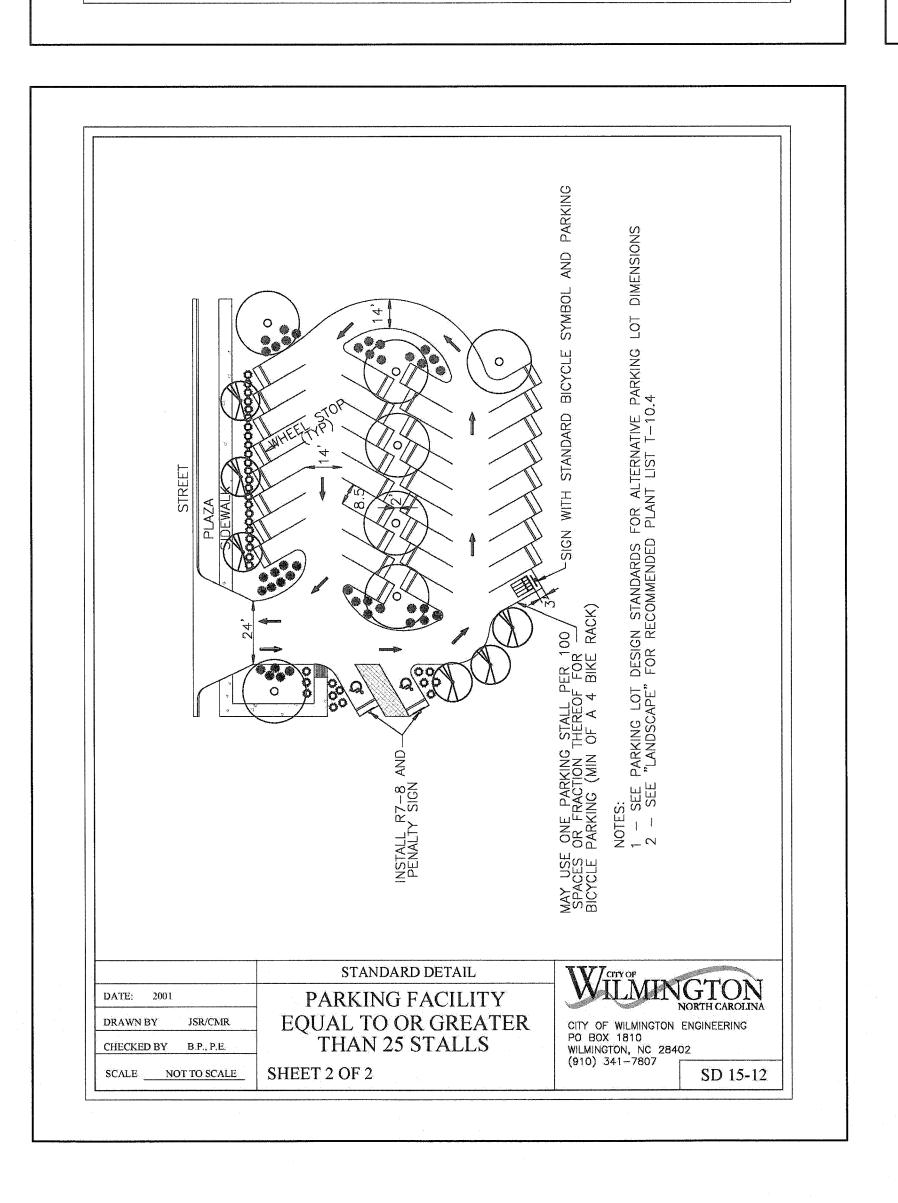
(910) 341-7807

GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE.

DO NOT DISFIGURE CROWN WITH

INTENSIVE PRUNING.





vision clearance.

prior to installation.

DATE: APRIL, 2008

DRAWN BY JSR

CHECKED BY B.P., P.E.

SCALE NOT TO SCALE

material lives and prospers.

5. Landscaping shall be required at the ends of all parking

7. Landscaped islands shall be a minimun width of twelve (12)

feet (back of curb to back of curb) and a minimum of

8. A minimum of fifteen (15) trees 2 inches or greater in diameter

as measured 6 inches above ground per disturbed acre.

9. For recommended Plant List see "Landscape" T-10.4.

STANDARD DETAIL

LANDSCAPE NOTES

CITY OF WILMINGTON ENGINEERING

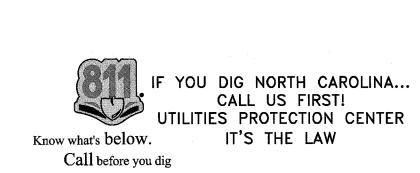
SD 15-14

WILMINGTON, NC 28402

6. A low buffer shall be required where parking

is within fifty (50) feet of the Right-of-Way.

two hundred and sixteen (216) square feet.



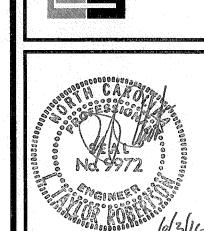
24 HR EMERGENCY CONTACT MR. CHARLES WORTHEN PHONE: 404-537-3462

WILMINGTON LANDSCAPE DETAILS

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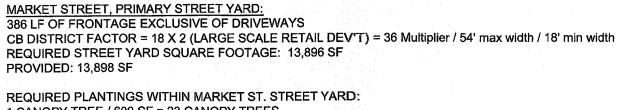


05-25-16 13-288

LA-8

06-01-16 13-288

HEET NUMBER



PROVIDED: 13,898 SF REQUIRED PLANTINGS WITHIN MARKET ST. STREET YARD: 1 CANOPY TREE / 600 SF = 23 CANOPY TREES 6 SHRUBS (min. 12" height at planting) / 600 SF = 139 SHRUBS

Existing trees being saved within street yard for credit:

STREET YARD CALCULATIONS:

2, 36" OAKS = 12 credits (6 each) 3, 8" CEDARS = 6 credits (2 each)
TOTAL CREDITS = 18 5 additional canopy trees required 5 LIVE OAKS PROVIDED.

TOTAL CANOPY TREES = 23 (18 credits + 5 proposed canopy trees)

139 Shrubs required, and 142 Shrubs provided

PROVIDED: 10.531 SF

MIDDLE SOUND LOOP ROAD, CB ZONED PROPERTY - SECONDARY STREET YARD (Publix/Shops Property): 511 LF EXCLUSIVE OF DRIVEWAYS CB DISTRICT FACTOR = 18 Multiplier / 27' max width / 9' min width REQUIRED STREET YARD SQUARE FOOTAGE: 9198 SF

REQUIRED PLANTINGS WITHIN MIDDLE SOUND LOOP RD. CB ZONED STREET YARD: 1 CANOPY TREE / 600 SF = 18 CANOPY TREES OR 3 UNDERSTORY TREES / 600 SF (if overhead power lines are present) = 53 UNDERSTORY TREES 6 SHRUBS / 600 SF = 105 SHRUBS

Existing trees being saved within street yard for credit 12" DOGWOOD = 3 credits 37" OAK = 6.16 credits 13" DOGWOOD = 3 credits 30" OAK = 5 credits TOTAL CREDITS = 23.16 REQUIREMENT SATISFIED (18 canopy trees required).

105 Shrubs required, and 116 Shrubs provided

MIDDLE SOUND LOOP ROAD, CS ZONED PROPERTY - SECONDARY STREET YARD (Metal Bldg Property): CS DISTRICT FACTOR = 25 Multiplier / 37.5' max width / 12.5' min width REQUIRED STREET YARD SQUARE FOOTAGE: 2,925 SF PROVIDED: 4388 SF WITH 378 SF IMPERVIOUS or 8.6%

REQUIRED PLANTINGS WITHIN MIDDLE SOUND LOOP RD. CS ZONED STREET YARD: 1 CANOPY TREE / 600 SF = 7 CANOPY TREES OR 3 UNDERSTORY TREES / 600 SF (if overhead power lines are present) = 22 UNDERSTORY TREES 6 SHRUBS / 600 SF = 44 SHRUBS

Existing trees being saved within street yard for credit 22" PINE = 4 credits 19" CYPRESS = 4 credits 17" CYPRESS = 3 credits
TOTAL CREDITS = 11 REQUIREMENT SATISFIED (7 canopy trees required)

44 Shrubs required, and 45 Shrubs provided

## REDUCTION OF REQUIREMENTS:

Sec. 18-457(e): The following may be required or permitted by the reviewing agency to accomodate protected

Site sensitivity in location and designing parking, stormwater facilities, utilities, streets, and buildings in relation to existing topographic features and vegetative cover. Adjustments to the location or positioning of essential site improvements that do not compromise the intended use may be required Reduction of parking to the minimum required per the zoning ordinance for the appropriate use. Reduction in required street yards, landscape islands, foundation plantings, or setbacks for the purpose of

LANDSCAPE CALCULATIONS: Sec. 18-462: Landscaping plans shall be submitted before or at the time of application for the building permit for all development projects.

12.56 ACRES x 15 TREES = 188.4 trees must be retained or planted on-site.

Sec. 18-488(d): 15 trees per disturbed acre, 2" DBH or greater, must be retained or planted on the disturbed portion of the site, including trees located in the street yard and bufferyard. To meet this requirement, spading for the purpose of transplanting existing trees greater than 4" is allowed.

25 tree credits for trees being transplanted via spading +98 trees being saved on-site for a total of 340.79 tree credits

TOTAL TREE CREDITS VIA SAVED/TRANSPLANTED TREES: 365.79 (An excess of 177.39 credits)

PARKING LOT LANDSCAPING

PROVIDED:

PARKING AREA PERIMETER: N/A

Sec. 18-481: The interior area of a parking facility shall be shaded by canopy trees either planted or retained to provide 20% or greater canopy coverage at maturity. For purposes of this section, a parking facility shall include any areas of a development devoted to pedestrian or vehicular use, including, but not limited to, parking areas, loading spaces, driveways, and internal drive aisles. Sec. 18-481(a): All single planting islands measuring 12' by 18' or having the equivalent square footage shall have at least 1 tree. All double

planting islands measuring 12' by 36' or having the equivalent square footage shall have at least 2 small mature shade trees or 1 canopy tree. All larger planting islands will have additional trees in increments of 1 tree for each additional 200 SF if installing small shade trees or 1 tree for every 400 SF if installing canopy trees. All planting islands shall have additional groundcover or shrubbery from the approved planting list to cover the entire landscaped island. At least 75% of the trees required shall be of a larger shade/canopy species. Small maturing shade trees may be planted where overhead power lines would interfere with normal growth or for site design considerations, if trees are maintained

LANDSCAPE ISLANDS DO NOT MEET MINIMUM SIZES AS STATED ABOVE. REQUESTING WAIVERS TO ALLOW THE RECONFIGURED DESIGN OF LANDSCAPE ISLANDS WITHIN INTERIOR OF PARKING LOT TO ACCOMODATE THE EXISTING TREES

Sec. 18-481(g): Consecutive parking spaces shall incorporate landscaped islands at the ends of all parking rows and within the rows, such that no parking space is located more than 120' from a planting island or peninsula unless reconfiguration has been allowed pursuant to this Article to retain existing vegetation and provided the 20% canopy cover is achieved. Islands shall contain at least 216 SF in area and be at least 12' in width, measured from back-of-curb to back-of-curb.

ALL PARKING SPACES ARE LOCATED WITHIN 120' FROM A PLANTING ISLAND, HOWEVER RECONFIGURATION IS BEING REQUESTED IN ORDER TO ACCOMODATE MORE EXISTING TREES TO BE SAVED WITHIN PARKING FIELD. Sec. 18-481(h): Interior landscaping requirements may be waived to allow reconfiguring of designs to retain existing trees in or adjacent to parking areas. Barriers are still required at the ends of parking lanes where necessary to aid safe flow of traffic.

REQUESTING WAIVERS TO ALLOW THE RECONFIGURED DESIGN OF LANDSCAPE ISLANDS WITHIN INTERIOR OF PARKING LOT O ACCOMODATE THE EXISTING TREES BEING SAVED. BARRIERS ARE PROVIDED AT THE ENDS OF PARKING LANES. ANDSCAPE ISLANDS DO NOT MEET MINIMUM SIZES AS STATED ABOVE. Sec. 18-481(j): For purposes of determining if the landscape plan meets the shading requirements of this section, each canopy tree of the type described in this section shall be presumed to shade a circular area of 707 SF (based on having a canopy radius of 15' with the trunk of the tree as the center). When smaller shade trees area planted, each tree shall be presumed to shade a circular area of 314 SF (based on

having a canopy radius of 10"). Perimeter trees shall be given credit for that portion of the area of the canopy that overlays the parking area. Using this standard, 20% of the parking facility area must have canopy coverage. For existing trees, credit shall be given for the actual canopy overhanging the parking facility. The trees counted toward meeting the shading requirements shall be indicated and calculations shall be shown on the landscape plan.

PARKING AREA INTERIOR SHADING

REQUIRED: 211,471 SF VEHICULAR USE AREA OF PUBLIX/SHOPS

211,471 X 20% = 42,294 SF

38 LARGE CANOPY TREES BEING PLANTED: 707 sf credit each x 38 = 26,866 SF 25 SMALL CANOPY TREES BEING PLANTED: 314 sf credit each x 25 = 7850 SF 23,955 SF IN EXISTING TREES WITHIN AND AROUND PARKING FACILITY BEING SAVED TOTAL SF OF PARKING AREA INTERIOR SHADING: 58,671 SF OR 27.7%

21.827 SF VEHICULAR USE AREA OF METAL BUILDING PROPERTY 21,827 X 20% = 4365 SF

9 LARGE CANOPY TREES BEING PLANGED: 707 sf credit each x 9 = 6363 SF 1 SMALL CANOPY TREE BEING PLANTED: 314 sf credit each x 1 = 314 SF 2210 SF IN EXISTING TREES AROUND PARKING FACILITY BEING SAVED TOTAL SF OF PARKING AREA INTERIOR SHADING: 8887 SF OR 40.1%

FOUNDATION PLANTINGS PER LARGE-SCALE RETAIL DEV'TS: REQUIRED: A 100SF LANDSCAPED AREA SHALL BE REQUIRED AT A MINIMUM OF 50' INTERVALS, WITH THE EXCEPTION OF ENTRY AREAS DEFINED BY ARCHITECTURAL FEATURES. PROVIDED: 100 SF OF LANDSCAPED AREAS PROVIDED EVERY 50' ALONG PUBLIX & SHOPS A FRONTAGE. \*NO LANDSCAPED AREAS ARE BEING PROVIDED ALONG FRONTAGE OF SHOPS B.

1465 LF ALONG ADJACENT RESIDENTIAL ZONING DISTRICT \*703 LF OF FENCE PROVIDED. 762 LF WITHOUT FENCING. ALL 20' WIDTH. NATURAL VEGETATION IS BEING RETAINED AT 100%.

ADDITIONAL PLANTINGS PER CODE ARE SUPPLEMENTING THE EXISTING VEGETATION. TOTAL REQUIRED MITIGATION TREES = 335 (SEE TABLE ON SHEET LA-1 FOR DESCRIPTIONS OF MITIGATION REQUIRED). AN EXCESS OF 177.39 TREE CREDITS IS AVAILABLE THROUGH SAVED TREES ON-SITE AFTER 15 TREES/ACRE REQUIREMENT

HAS BEEN MET. 177.39 TREE CREDITS TO BE APPLIED TOWARD 335 REQUIRED MITIGATION TREES: 335 - 177.39 = 157.61 MITIGATION TREES REQUIRED. MITIGATION THROUGH PLANTED TREES NOT IN STREETYARDS/PKNG LOTS/BUFFERS = 47 PINES (LONG LEAF & LOBLOLLY) 157.61 - 47 = 110.61 MITIGATION TREES REQUIRED AND UNABLE TO BE PLANTED ON-SITE.

SEC. 18-258 COMMERCIAL PARKING LOTS: REQUIRED: 1 TREE & 6 SHRUBS SHALL BE PLANTED FOR EVERY 15 PARKING SPACES. PROVIDED: 355 SPACES / 15 = 24 TREES REQUIRED & 142 SHRUBS. MORE THAN 24 TREES & 142 SHRUBS ARE BEING PROVIDED. MORE THAN 50% OF TREES ARE SHADE/CANOPY VARIETY. SEE CALCS UNDER

REQUIRED: A MINIMUM 100 SF LANDSCAPED AREA SHALL BE REQUIRED AROUND THE BASE OF ANY FREESTANDING SIGN SIGN ALONG MIDDLE SOUND LOOP ROAD: 475 SF OF LANDSCAPED AREA PROVIDED. SIGN ALONG MARKET STREET: 245 SF OF LANDSCAPED AREA PROVIDED.

1. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE LATEST, CURRENT SET OF PLANS & SPECIFICATIONS PRIOR TO BIDDING AND INSTALLATION. ANY AND ALL BID QUESTIONS, INCLUDING BUT NOT LIMITED TO QUESTIONS REGARDING PLANT SELECTIONS, SIZES/QUANTITIES, AVAILABILITY, USDA HARDINESS ZONES, PLAN DISCREPANCIES, ETC., MUST BE SUBMITTED THROUGH THE GENERAL CONTRACTOR TO THE HALPERN-APPOINTED BID REPRESENTATIVE. DO NOT CONTACT THE LANDSCAPE ARCHITECT DIRECTLY PRIOR TO THE BID BEING AWARDED. AFTER THE BID HAS BEEN AWARDED. CONTACT RLR LANDSCAPE ARCHITECT WITH ANY PLAN-RELATED QUESTIONS AND TO VERIFY MOST CURRENT APPROVED

2. THE PROJECT SPECIFICATIONS ARE A PART OF THESE PLANS AND SHALL BE CONSULTED BY THE LANDSCAPE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING ALL WORK AS SPECIFIED ON THE PLANS AND IN THE

3. LANDSCAPE CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES SHOWN ON PLANS AND IN PLANT SCHEDULE PRIOR TO BIDDING AND BEGINNING WORK. QUANTITIES SHOWN ON PLANS (VERSUS IN PLANT SCHEDULE) TAKE PRECEDENCE. IF A DISCREPANCY IS FOUND DURING BIDDING, CONTRACTOR SHALL NOTIFY THE HALPERN-APPOINTED BID REPRESENTATIVE. IF A DISCREPANCY IS FOUND AFTER BIDS HAVE BEEN AWARDED, CONTACT THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING

4. PRIOR TO CONSTRUCTION, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC., WHICH OCCURS AS A RESULT OF THE LANDSCAPE CONSTRUCTION.

LANDSCAPE ARCHITECT. LANDSCAPE CONTRACTOR SHALL SUBMIT ALL PROPOSED CHANGES IN WRITING TO THE RLR 6. ALL TREES & PLANTS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT, THE OWNER, OR THE OWNER'S

REPRESENTATIVE BEFORE, DURING, AND AFTER INSTALLATION, AND MUST BE REPLACED BY THE LANDSCAPE CONTRACTOR WITH ACCEPTABLE PLANT MATERIAL. APPROVAL OF TREES & PLANTS AT THE NURSERY DOES NOT ALTER THE RIGHT OF

7. ALL TREES MUST BE STAKED AS SHOWN IN THE DETAILS, UNLESS THE LOCAL MUNICIPALITY REQUIRES OTHERWISE

8. WARRANTY: THE LANDSCAPE CONTRACTOR SHALL PROVIDE A WARRANTY FOR ALL PLANT MATERIALS (TREES, SHRUBS, GROUNDCOVER, TURF, ETC.) FOR A PERIOD OF ONE (1) YEAR FROM FINAL PROJECT ACCEPTANCE. THE LANDSCAPE REPLACING ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES. ALL REPLACEMENT MATERIAL SHALL BE OF THE SAME SPECIES, QUANTITY, SIZE, AND MEETING ALL PLANT LIST SPECIFICATIONS

9. MAINTENANCE: PROVIDE FULL MAINTENANCE BY SKILLED EMPLOYEES OF THE LANDSCAPE CONTRACTOR. BEGIN MAINTENANCE IMMEDIATELY AFTER TREES, PLANTS AND TURF ARE INSTALLED AND CONTINUE UNTIL PLANTINGS ARE ACCEPTABLY HEALTHY AND WELL-ESTABLISHED, BUT FOR NOT LESS THAN THE WARRANTY PERIOD LISTED ABOVE. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING MAINTENANCE SCHEDULE WITH HALPERN AND/OR

10. MAINTENANCE COSTS: ALL MAINTENANCE COSTS SHALL BE INCLUDED IN THE OVERALL BASE BID PRICING WITH A BREAKOUT AMOUNT PROVIDED. INCLUDE BREAKOUT AMOUNT IN CONTRACTOR'S SCHEDULE OF VALUES. 11. MAINTENANCE SCOPE: MAINTAIN AND ESTABLISH TURF, PLANTS, AND TREES BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, REPLANTING, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE

12. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE INSTALLATION AND USE OF ALL NECESSARY IRRIGATION SYSTEMS WITH HALPERN, PUBLIX, AND THE SITE PROPERTY MANAGER. SEE IRRIGATION PLANS AND SPECIFICATIONS (IF APPLICABLE) FOR FURTHER INFORMATION ON CONTRACTOR'S RESPONSIBILITIES, REQUIRED WARRANTY

# PLANTING PLAN NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS.

2. THESE PLANS ARE SCHEMATIC AND DUE TO THE NATURE OF CONSTRUCTION, SLIGHT FIELD MODIFICATIONS MAY BE NECESSARY. ANY DEVIATIONS FROM THE ORIGINAL PLANS SHOULD BE NOTED ON THE AS-BUILT DRAWINGS. FIELD ADJUSTMENTS MAY ALSO BE REQUIRED IF ANY EXISTING LANDSCAPING IS TO REMAIN, AND SHOULD BE WORKED OUT AT PRIOR TO BEGINNING WORK IF AT ALL POSSIBLE. CONTACT THE LANDSCAPE ARCHITECT WITH QUESTIONS.

3. AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004 OR LATEST VERSION) ARE ONLY GUIDELINE SPECIFICATIONS AND SHALL BE CONSIDERED MINIMUM QUALITY REQUIREMENTS FOR ALL PLANTS AND TREES.

4. ALL PLANTS AND TREES MUST COMPLY WITH GENUS, SPECIES, VARIETY, AND CULTIVAR INDICATED ON DRAWINGS, AND WITH ANSI Z60.1, (INCLUDING A DOMINANT CENTRAL LEADER FOR ALL SHADE TREES). PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, DENSELY FOLIATED WHEN IN LEAF AND FREE OF DISEASE, PESTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.

5. SIZES INDICATED IN THE PLANT AND TREE SCHEDULES ARE CONSIDERED THE MINIMUM ACCEPTABLE SIZES. THIS APPLIES TO BOTH HEIGHT AND CONTAINER SIZE. IF BOTH ARE LISTED. IN THE EVENT THE CONTRACTOR HAS DIFFICULTY MEETING THE STATED MINIMUM SIZES, CONTRACTOR SHALL PROVIDE DOCUMENTATION TO THE LANDSCAPE ARCHITECT, PRIOR TO INSTALLATION, FROM THREE (3) PLANT NURSERIES OR TREE FARMS INDICATING THE SIZES ARE NOT ACHIEVABLE.

6. IF ANY PLANT MATERIAL IS REJECTED BY THE GOVERNING MUNICIPALITY FOR NOT MEETING THE MINIMUM SIZES LISTED IN THE PLANT AND TREE SCHEDULES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PAY FOR AND REPLACE SAID MATERIAL AS NECESSARY IN ORDER TO GET FINAL APPROVAL.

7. ROOT BALL DIAMETERS & DEPTHS SHALL COMPLY WITH THE MINIMUM SIZES AS LISTED IN ANSI Z60.1. ROOT BALL DEPTHS SHALL BE MEASURED FROM THE TOP OF THE BALL, WHICH IN ALL CASES SHALL BEGIN AT THE ROOT FLARE. ROOT FLARE SHALL BE VISIBLE BEFORE PLANTING. THE TOP OF ALL ROOT-BALLS SHALL BE 1.5 TO 2 INCHES ABOVE GRADE IN WELL-DRAINED SOILS, AND UP TO 4 INCHES ABOVE GRADE IN POORLY DRAINED SOILS. DO NOT COVER THE TOP OF THE

8. PRIOR TO MULCHING, CLEAN AREA OF WEED GROWTH AND DEBRIS AND TREAT PLANTING AREAS WITH PRE-EMERGENT WEED KILLER, APPLIED ACCORDING TO THE MANUFACTURER'S DIRECTIONS.

9. ALL PLANTING BEDS AND MULCHED AREAS ARE TO RECEIVE PINE BARK MULCH, UNLESS OTHERWISE SPECIFIED BY OWNER OR OWNER'S REPRESENTATIVE. CONTRACTOR MUST RECEIVE APPROVAL FROM LANDSCAPE ARCHITECT OR OWNER IF USING STAINED OR DYED VARIETIES OF MULCH. APPLY 4-INCH MINIMUM THICKNESS OF MULCH OVER ENTIRE SURFACE OF PLANTING AREA, WITH FINISH LEVEL ADJACENT TO FINISH GRADES.

10. ALL TREES NOT LOCATED WITHIN SHRUB BEDS SHALL RECEIVE MULCH TO THE DEPTH SPECIFIED IN A 3' DIAMETER MULCH BED AROUND THE CENTER OF THE TRUNK. KEEP MULCH A MINIMUM OF 2 INCHES AWAY FROM THE TREE TRUNK TO

11. ALL DISTURBED LANDSCAPE AREAS NOT SHOWN TO BE SODDED, SEEDED OR MULCHED, SHALL RECEIVE MULCH, UNLESS OTHERWISE SPECIFIED BY OWNER OR OWNER'S REPRESENTATIVE. ADDITIONAL SEEDING OR SODDING BEYOND PROPERTY LINES (I.E. RIGHT-OF-WAY AND/OR ADJACENT PROPERTIES) MAY BE REQUIRED. CONSULT OWNER OR OWNER'S REPRESENTATIVE FOR SITE SPECIFIC LIMITS.

### **AS-BUILT DRAWINGS:**

1. LANDSCAPE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS INDICATING ANY CHANGES IN SPECIES, SIZE, AND

2. LANDSCAPE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OR THE LANDSCAPE ARCHITECT WHEN ALL

LANDSCAPING HAS BEEN INSTALLED. 3. PRIOR TO FINAL ACCEPTANCE, THE AS-BUILT DRAWINGS MUST BE CERTIFIED BY THE LANDSCAPE ARCHITECT WHO CREATED THE ORIGINAL LANDSCAPE DRAWINGS.

# TREE PROTECTION FENCING NOTES:

1. ALL TREE PROTECTION DEVICES ARE TO BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE, AND MUST REMAIN IN FUNCTIONING CONDITION UNTIL COMPLETION OF THE PROJECT OR UNTIL THE CERTIFICATE OF OCCUPANCY IS

2. ALL TREE PROTECTION FENCING SHALL CONFORM TO LOCAL MUNICIPALITY REQUIREMENTS. 3. NO PARKING, STORAGE, OR OTHER CONSTRUCTION SITE ACTIVITIES ARE TO OCCUR WITHIN TREE PROTECTION AREAS.

4. TREE PROTECTION FENCING TO BE INSPECTED DAILY, AND REPAIRED OR REPLACED AS NEEDED.

5. TREE PROTECTION AREAS ARE TO BE PROTECTED FROM SEDIMENTATION.

### **SEED & SOD NOTES:**

1. SATISFACTORY SODDED TURF: AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, WELL-ROOTED, EVEN-COLORED, VIABLE TURF MUST BE ESTABLISHED, FREE OF WEEDS, OPEN JOINTS, BARE AREAS, AND SURFACE

2. USE SPECIFIED MATERIALS TO RE-ESTABLISH TURF THAT DOES NOT COMPLY WITH REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL TURF IS SATISFACTORY.

MR. CHARLES WORTHEN PHONE: 404-537-3462

24 HR EMERGENCY CONTACT

LANDSCAPE NOTES & DETAILS

TREE (SEE LANDSCAPE PLANS) - MULCH, 3" TO 4" DEEP. Keep 2" away - PROVIDE DRAINAGE AS NEEDED — CURB & GUTTER - EXCAVATE A MINIMUM 30" OF SUBGRADE FROM PLANTER ISLAND AND BACKFILL WITH TOPSOIL.

PROPOSED -

SHRUB.

TYPICAL

SHRUB SIZE AT MATURITY

xcavate circular planting pits with

45-degree angle. Scarify sides of

planting pit smeared or smoothed

ASPHALT

PAVING

TYPICAL PLANTER ISLAND DETAIL

sides sloping inward at a

during excavation

Ensure that rootball sits on undisturbed

base soil to prevent settling.

**MULCH & LAWN AT CURB** 

Use topsoil for backfill. Backfill around -

rootball in layers, tamping to settle soil

and eliminate voids and air pockets

When planting pit is approx. 1/2 filled,

water thoroughly before placing

remainder of backfill.

GRASSED AREA

TOPSOIL -

MULCH, 3"-4" DEPTH

SUBSOIL -

GRASS SHALL BE

OR SIDEWALK.

**INSTALLED FLUSH WITH** 

TOP OF ADJACENT CURB

BERM ISLAND TO ENSURE -

SLOPE FROM CENTER)

YOU DIG NORTH CAROLINA.

ITILITIES PROTECTION CENTER

CALL US FIRST!

Call before you dig

POSITIVE DRAINAGE (MINIMUM 2%

SEE LANDSCAPE PLANS.

LAWN, GROUNDCOVER, OR SHRUBS.

PLANTING HOLE: TAMP SOIL -BENEATH TREE FIRMLY TO PREVENT SETTLING.

CURB & GUTTER -

PROVIDE DRAINAGE AS NEEDED -

SUBSOIL -

1. Ensure that root flare is visible at top of rootball according to ANSI Z60.1.

4. Remove at least the top  $\frac{1}{3}$  of burlap from balled & burlapped shrubs.

3. Planting pit shall be at least 12" wider than root spread.

Carefully remove rootball from container without damaging rootball or plant.

SHRUB PLANTING DETAIL

SHRUB SIZE AT TIME OF PLANTING

PLANT SPACING TABLE

5.2"

6.93"

8.66"

1.08'

1.59'

2.5' OC | 2.16' | 0.19

" OC

0" OC

12" OC

15" OC

2' OC

PLAN VIEW - TRIANGULAR SPACING

4.61

2.60

1.66

0.51

CAR, -

TYPICAL

10.4" | 1.15

1.73' 0.29

2.60' 0.13

TRIANGULAR SPACING:

LANDSCAPE CONTRACTOR NOTES:

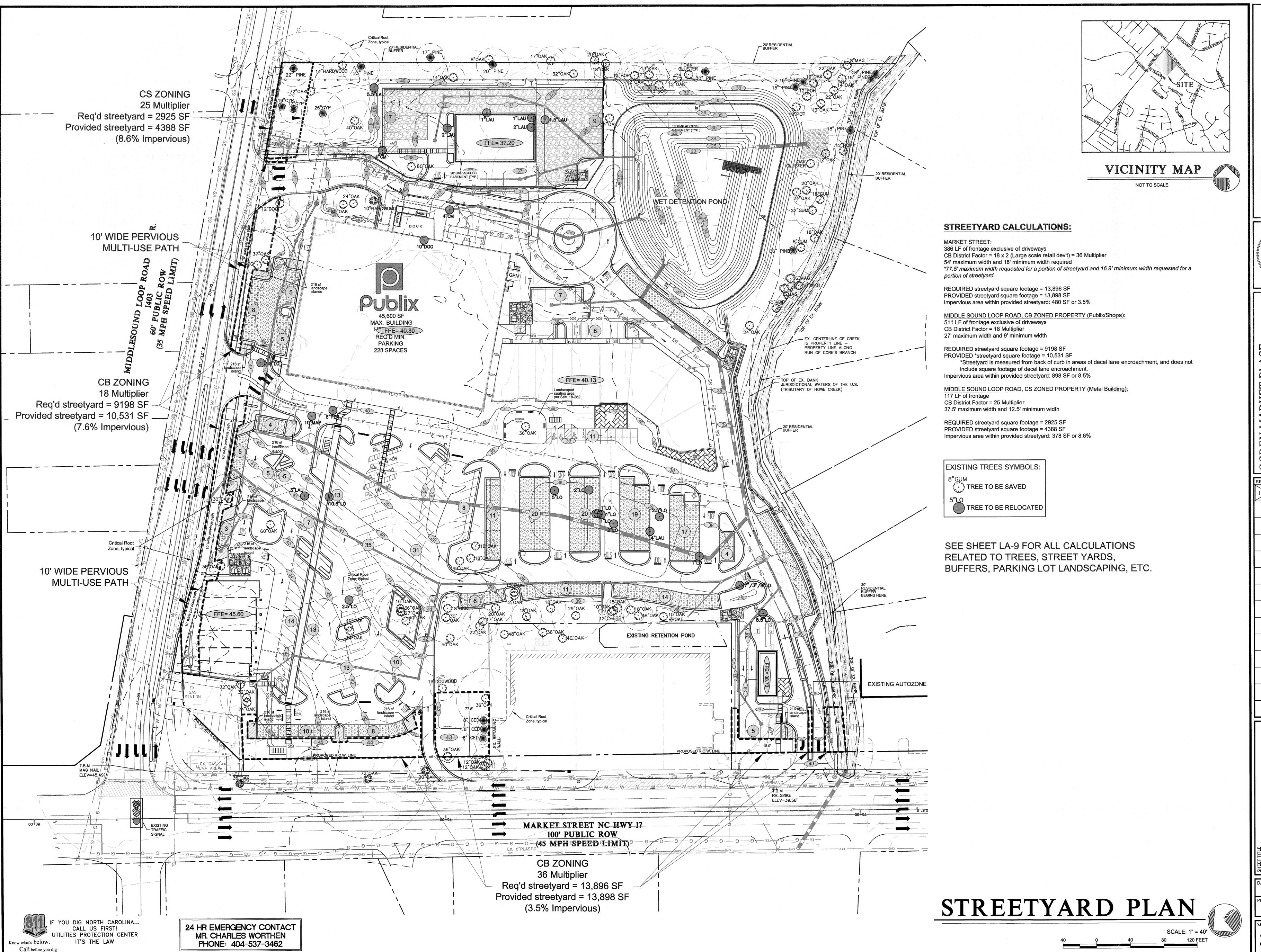
LANDSCAPE PLANS PRIOR TO INSTALLATION.

SHRUB PLANTING LOCATION WHEN ADJACENT TO HEAD-IN PARKING

5. THERE SHALL BE NO ADDITIONS, SUBSTITUTIONS, OR DELETIONS TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE

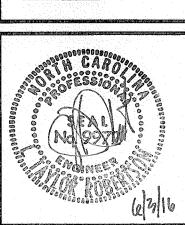
REJECTION AT THE PROJECT SITE. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL STAKING AND GUYING AFTER ONE GROWING

TURF, PLANTS, AND TREES.



RO

A R C



05-02-16 PROJECT NUMBER 13-288

SP-1